

**ABSTRACT OF THE DISCLOSURE**

A method and apparatus for controlling an equalizer using a sync signal in a digital VSB system is provided, in which the sync signal is accurately separated even though a ghost having a short delay time and a large size is generated, and thus the equalizer is controlled with the separated sync signal. For this purpose, a switching unit is provided between a matched filter and an equalizer, which selects one of two input signals according to a NTSC rejection filter (NRF) on/off control signals and separates a data segment sync signal and a data field sync signal from the selected signal. A control signal is produced via the separated sync signal to control the equalizer to operate at one mode of a blind mode and a training sequence mode. Since the equalizer performs sync signal separation by using the ghost removed signal, a system initial operational time becomes shorter, and accurate sync signal separation is possible even if severe ghosts occur, to thereby improve degeneration of system performance greatly.